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TITLE : STEEL SHEET HAVING EXCELLENT SHAPE FIXABILITY AND ITS PRODUCTION METHOD

ABSTRACT : PROBLEM TO BE SOLVED: To provide a hot rolled steel sheet and a cold rolled steel sheet having excellent shape fixability and to provide a method for producing the same.

SOLUTION: The steel sheet having excellent shape fixability has a composition containing, by weight, 0.0001 to 0.05% C, 0.001 to 2.5% Si, 0.01 to 2.5% Mn, 0.005 to 0.15% P, $\leq 0.03\%$ S, 0.01 to 2.0% Al, $\leq 0.01\%$ N and $\leq 0.01\%$ O and satisfying any relation obtained by the components of the steel by mass% shown in the inequalities (1) and (2), and the balance iron with unavoidable impurities, in which the average value of the X-ray random intensity ratios in the groups of the $[100]\langle 011 \rangle$; to $[223]\langle 110 \rangle$; orientations of the sheet face at least in the sheet thickness of $1/2$ is ≥ 3.0 , also the average value of the X-ray random intensity ratios in the three crystal orientations of $[554]\langle 225 \rangle$; $[111]\langle 112 \rangle$; and $[111]\langle 110 \rangle$; is ≤ 3.5 , and further, at least one of the (r) value in the rolling direction and that in the direction orthogonal to the rolling direction is ≥ 0.7 : $203\sqrt{C+15.2Ni-44.7Si-104V-31.5Mo+30Mn+11Cr+20Cu-700P-200Al}<30$ (1), and $44.7Si+700P+200Al>40$ (2).

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